

-54-

**ABSTRACT**

An implantable anti-tachyarrhythmia device which delivers anti-tachyarrhythmia therapies to a patient's heart in response to detection of tachyarrhythmias. The device defines first criteria indicating the presence of atrial tachycardia and second criteria indicating the presence of atrial fibrillation, and compares the time elapsed since the either the first or second criteria were initially met to a defined time duration. In response to the defined duration having passed and either of the first or second criteria being met, the device triggers delivery of an appropriate anti-tachyarrhythmia therapy. The timer is reset on detection of termination of atrial tachyarrhythmia, but not on failure of the first and second criteria to be met. The first and second criteria are defined such that they can not be concurrently met.